

AMENDMENT TO THE CLAIMS

Please amend the claims as follows without prejudice:

1-12. (Canceled)

13. (Currently amended) A method of forming a structural assembly, comprising the step of:

affixing a first pre-cured assembly to a 3-D woven textile pre-form impregnated with an uncured resin, an adhesive film being located between said first pre-cured assembly and said pre-form, said pre-form having a base and first and second legs extending from the base, the base having first and second ends having tapered sections that are tapered in thickness, and the first and second legs having ends that have tapered sections that are tapered in thickness, said first pre-cured assembly being located on a side of the base opposite the first and second legs;

affixing a second pre-cured assembly between said first and second legs of said 3-D woven textile pre-form with an additional adhesive film being located between said second pre-cured assembly and inner surfaces of said first and second legs of said pre-form;

curing said resin and said adhesive films to form the structural assembly; wherein

said curing is performed by placing a leg side of a first pressure intensifier of flexible material against an exterior surface of said first leg and placing a base side of said first pressure intensifier against said base, said leg side of said first pressure intensifier extending past and an end of said first leg for contact with said second pre-cured assembly, and said base side of said first pressure intensifier extending past a first end of said base ~~for contact with said first pre-cured assembly~~, and placing a leg side of a second pressure intensifier of flexible material against an exterior surface of said second leg and placing a base side of said second pressure intensifier against said base, said leg side of said second pressure intensifier extending past an end of said second leg ~~for contact with said second pre-cured assembly~~, and said base side of said first second pressure intensifier extending past a second end of said base ~~for contact with said first pre-cured assembly~~, each of said pressure intensifiers having an exterior side that extends from an edge of said base side to an edge of said leg side;

inserting said first and second pre-cured assemblies along with said pre-form, adhesive films, and pressure intensifiers into a vacuum bag, then evacuating the vacuum bag, causing the

pressure intensifiers to press said base and legs of said pre-form against portions of said pre-cured assemblies; and

wherein each of said leg sides and each of said base sides of said first and second pressure intensifiers are straight surfaces located in a single plane and spaced from said tapered sections prior to evacuating the vacuum bag.

14. (Canceled)

15. (Canceled)

16. (Previously Presented) The method of Claim 13, wherein said step of curing is implemented with heat and pressure.

17. (Canceled)

18. (Previously Presented) The method of claim 13, wherein said exterior side of each of said pressure intensifiers is concave.

19. (Previously Presented) The method of claim 13, wherein said step of curing is implemented with an E-Beam resin system.

20. (Previously Presented) The method of claim 13, further comprising the step of applying a composite overwrap ply on said exterior surfaces of said legs of said pre-form prior to pressing said leg sides of said pressure intensifiers against said legs.

21. (Canceled)

22. (Previously Presented) The method of claim 13, wherein said pressure intensifiers are rubber.

23. (Canceled)

24. (Currently Amended) A method of forming structural assemblies with pre-cured laminated composite structures, comprising the steps of:

providing a woven textile pre-form with a base and a pair of legs extending from the base at a 90 degree angle, the pre-form being impregnated with an uncured resin, said base having first and second portions extending from said first and second legs, respectively, said first and second portions of said base and said legs having tapered end sections that taper in thickness;

affixing a first adhesive film between a first pre-cured laminated composite structure and the base of the pre-form;

affixing an additional adhesive film between a second pre-cured laminated composite structure and inner surfaces of said first and second legs of said 3-D woven textile pre-form; then

providing flexible first and second pressure intensifiers, each being triangular in cross section, said first pressure intensifier having a base side located in a single plane that has a length greater than a length of said first portion of said base and a leg side located in a single plane that has a length greater than a length of said first leg, said second pressure intensifier having a base side located in a single plane that has a length greater than a length of said second portion of said base and a leg side located in ~~a single plane~~ a single plane that has a length greater than a length of said second leg, and placing said base side of said first pressure intensifier in contact with said first portion of said base and said leg side of said first pressure intensifier in contact with an exterior surface of said first leg and said base side of said second pressure intensifier in contact with said second portion of said base and said leg side of said second pressure intensifier in contact with an exterior surface of said second leg; then

enclosing said first and second pre-cured laminated composite structures, said pre-form and said pressure intensifiers within a vacuum bag and evacuating the bag; then

curing said adhesive films and said 3-D woven textile pre-form to form the structural assemblies; and wherein

prior to evacuating the bag, a clearance exists between said base side of said first pressure intensifier and said tapered end section of said first portion of said base and between said leg side of said first pressure intensifier and said tapered end section of said first leg, and a clearance exists between said base side of said second pressure intensifier and said tapered end section of

said second portion of said base and between said leg side of said second pressure intensifier and
said tapered end section of said second leg.

25. (Canceled)

26. (Canceled)

27. (Previously Presented) The method of claim 24, wherein said step of curing is implemented by heating the vacuum bag.

28. (Previously Presented) The method of claim 24, wherein said step of curing is implemented with an E-Beam cure resin system.

29. (Currently Amended) The method of Claim 24, further comprising the step of applying a composite overwrap ply on said exterior surfaces of said legs of said ~~pre-form~~pre-form.

30 – 42. (Canceled)

43. (Previously Presented) The method of Claim 24, wherein said pressure intensifiers are formed of rubber.

44-45. (Canceled)

46. (Currently Amended) A method of forming structural assemblies with pre-cured laminated composite structures, comprising the steps of:

providing a woven textile pre-form with a base and first and second legs extending from the base at an angle, defining a slot between them and corners at intersections of the legs and the base, the base having a first portion extending from the first leg and a second portion extending from the second leg, the first and second portions and first and second legs having tapered end sections that taper in ~~width~~ thickness, the pre-form being impregnated with an uncured resin;

affixing a first adhesive film between a pre-cured laminated composite first structure and the base of the pre-form on a side opposite the legs;

inserting a pre-cured laminated composite second structure into the slot with an additional adhesive film between inside surfaces of the legs and the second structure;

providing a pair of flexible pressure intensifiers, each of the pressure intensifiers being a three-sided polygon in cross-section, having two straight inner sides intersecting each other, defining a corner portion, and an exterior side that extends diagonally between edges of the inner sides, and placing the corner portion of each in contact with one of the corners formed by the base and the legs, the inner sides of each of the pressure intensifiers extending past the tapered end sections ~~for contact with the first and second structures and defining clearances between the tapered end sections and the inner sides for each of the pressure intensifiers~~; then

inserting the first and second structures, along with the pre-form, adhesive films and pressure intensifiers into a vacuum bag; and

evacuating the vacuum bag and applying heat to cure said adhesive films and pre-form to form the structural assemblies.

47. (Previously Presented) The method of Claim 13, wherein said base side and said leg side of each of said pressure intensifiers are at right angles to each other, and each of said pressure intensifiers is triangular in cross section.

48. (Currently amended) The method of claim 24, wherein each of said pressure intensifiers has an exterior side of each of said pressure intensifiers that is concave.